All-Purpose Bullet

The invention falls into the area of ammunition for firearms and pneumatic smooth-bore weapons and may be used as such for hunting and sporting guns.

Known are the following bullets described in (Reference 1) and (Reference 2).

The drawbacks of the above-mentioned bullets are as follows: a high aerodynamic drag, low processability, and impossibility to use them to shoot at different target types.

This invention's objective is to remove the disadvantages indicated above.

In order to achieve this objective, the bullet (Fig. 1) is made arrow-shaped, in the form of a tube front part of which a ballistic core is placed that directly guarantees a target kill. The rear of the bullet is designed in the form of an empennage made in the tube's material itself. This empennage is made by squeezing or rolling of the rear part of the tube, which is not filled up with the ballistic core.

To make the bullet have better aerodynamic properties, the ballistic core may be placed down into the tube at a depth exceeding its own length, with subsequently squeezing the remaining tube's material to form a truncated cone (Fig. 2).

So as to further improve the bullet's aerodynamic properties, an aerodynamical needle made either in the ballistic core's material (Fig. 3) or in the form of an additional component can be inserted into its front part, being placed into the remaining tube's material and being fastened with squeezing (Fig. 4).

In order to increase the shock of the bullet, it core can be made in the form of a set of separate strike subcomponents (Fig. 5).

To provide a target indication in the course of team hunting and to control the accuracy of fire, the bullet's empennage can be made in such a way that left is a longitudinal hollow filled up with some tracer inflammable while shooting (Fig. 6).

So as to additionally speed up the bullet, a micro thruster (Fig. 7) can be mounted into the above-mentioned hollow.

In order to make the bullet rotate, its empennage can be designed to have a spiral trim (Fig. 8).

To make the bullet more compact as well as to add more longitudinal stiffness to its empennage, which is necessary, for example, in using it together with a securing spring, the guide surfaces of the empennage can be designed to have longitudinal bendings of different configuration (Figs. 9 and 10).

With long-distance hunting for large, slow moving animals (bears and so on) and with respectively just one bullet being used in the sporting round, the former can be placed into the container (Fig. 11) consisting of a wad (Fig. 12), composed of various components and opening up at shooting, and a securing spring (Fig. 13) that is mounted into the wad, repeats the bullet's contours (Fig. 14), and is in compressed state in the round.

By repeating the bullet's contours and its own compressed state, the securing spring holds down the bullet, while it moves up the bore, and helps the wad to open up when the container exits the bore.

So as to hunt for more actively moving animals of medium size (wolves and so on), several bullets (3-10) described above can be inserted in the round's container.

In order to fasten bullets into the round's container and for them to hold each other, they can have a multifaceted cross-section, be in contact with each other along the surfaces of the facets (Figs. 15, 16, 17, and 18), and be attached to each other, for example, with using spherical pins and proper spherical indentations in the bullets.

Furthermore, the application of the bullets' multifaceted cross-section permits them to be used in combination with the bores, which cross-section's shape is different from round (for example, square), allowing the space of a sporting gun, which is intended for the magazine storage of munitions, to be used more optimally.

To hunt for very actively moving animals of small size (rats and so on), the round's container should include a significant number (10 - 20) of the bullets described above. In that case the bullets will have small linear dimensions and will have to be placed in the round's container in multiple layers.

In addition, in order to fasten the bullets into the round's container and for them to hold each other, the fin assemblies of one bullets' layer can be located in air clearances between the noses of another bullets' layer (Figs. 19 and 20).

The bullets of various sizes and purposes can be used in the round's container, with taking into account their mutual spatial coupling.

Cited References

1. Description of Application for RF Patent No. 92013002, Class 6F42 B7/10, 1992.

2. The Russian Federation Patent No. 2112205, Class 6F42 B30/02, 1998 – prototype.

We claim:

1. The all-purpose bullet characterized in that, it is made arrow-shaped, in the form of a tube to the front part of which a ballistic core is placed and the rear of which is designed in the form of a empennage made by squeezing the tube's material.

2. The bullet, according to claim 1, wherein its front part is designed in the form of a truncated cone made by squeezing the tube's material.

3. The bullet, according to the claim 1, wherein an aerodynamical needle is contained in its front part.

4. The bullet, according to claim 1, wherein its core is designed in the form of a set of separate strike subcomponents.

5. The bullet, according to the claim 1, wherein its empennage has a hollow filled up with some tracer.

6. The bullet, according to the claim 1, wherein its empennage has a hollow into which a micro thruster is mounted.

7. The bullet, according to the claim 1, being different in that, that its empennage has a spiral trim.

8. The bullet, according to the claim 1, being different in that that the guide surfaces of its empennage has longitudinal bendings.

9. The round's container, characterized in that it includes the bullet, according to the item 1, placed into a container, which consists of a compound, opening up wad and a securing spring mounted into the wad and repeating the bullet's contours.

10. The round's container, characterized in that that it includes several bullets, according to claim 1.

11. The round's container, according to claim 10, wherein it includes the bullets, according to claim 1, they being placed in layers, perpendicular to this container's longitudinal axis, and the fin assemblies of one bullets' layer being located in air clearances between the noses of another bullets' layer.

Fig.1

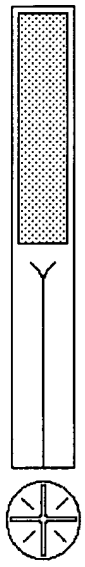

Fig.2

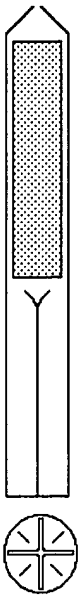

Fig.3

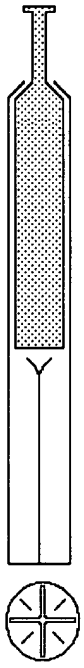

Fig.4

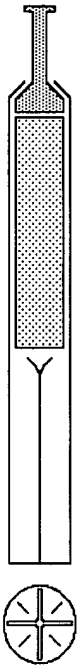

Fig.5

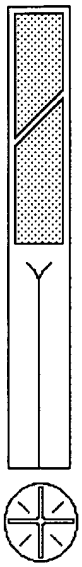

Fig.6

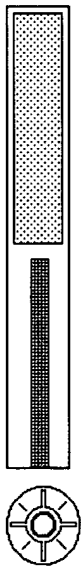

Fig.7

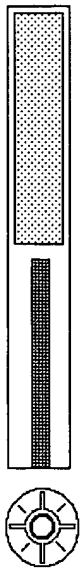

Fig.8

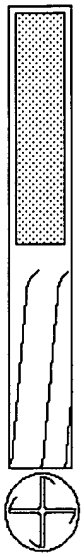

Fig.9

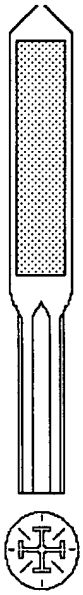

Fig.10

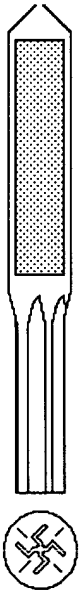

Fig.11

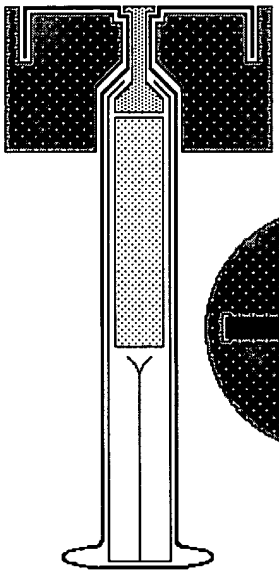

Fig.12

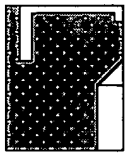

Fig.13

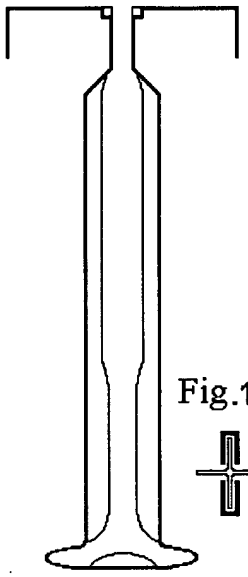

Fig.14

Fig .15

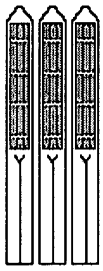

Fig .16

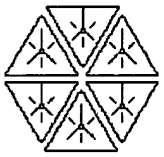

Fig.17

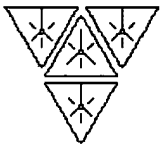

Fig .18

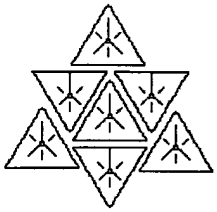

Fig .19

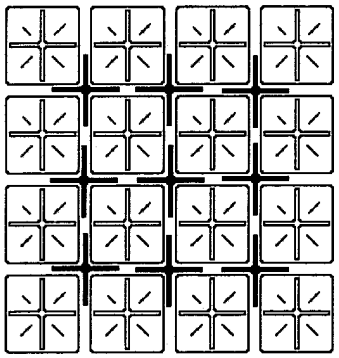

Fig. 20